

## PMVictoriaESPPEm Resource

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**From:** Terry, Tomeka  
**Sent:** Tuesday, May 29, 2012 4:09 PM  
**To:** Joshua.Trembley@exeloncorp.com; Palmrose, Donald; Kamboj, Sunita  
**Cc:** Avci, Halil I.; Wescott, Konstance L.  
**Subject:** Draft Rad Waste RAIs  
**Attachments:** Rad Waste Non Rad Waste RAIs - R1 (3).doc

JT,

Attached is revise draft radioactive waste RAIs 3.5-3. If you have any question, please let me know.

Thanks!  
Tomeka

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**Subject:** Draft Rad Waste RAIs  
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**Received Date:** 5/29/2012 4:09:07 PM  
**From:** Terry, Tomeka

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Request for Additional Information No. 6454 Revision 0

Victoria County Station ESP  
Exelon Texas  
Docket No. 52-042  
SRP Section: ESP EIS 3.4.3 - Radioactive Waste Management Systems  
Application Section: Part 3, Environmental Report Section 3.5

QUESTIONS for Environmental Projects Branch 2 (RAP2)

ESP EIS 3.4.3-1

RW 3.5.-2 - ESRP Section 3.5 directs the staff to review the applicant's design of radioactive waste management and effluent control systems presented in the ER. The blowdown discharge location for liquid effluent release is upstream of the raw water makeup intake structure (ER Figure 2.3.1-1). The releases upstream have a potential to get in the cooling basin through the raw water makeup system downstream. This mechanism could result in contaminating the cooling basin. ESRP Section 5.4.2 directs the staff to review the applicant's evaluation of doses due to radioactive gaseous and liquid effluent discharges presented in the ER. Licensees are responsible for evaluating any new exposure pathways and the resultant radiological hazards associated with the return of radioactive material to the operating facility and its subsequent discharge to the environment. As described in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, issued October 1977, licensees must evaluate any new exposure pathways to members of the public that contribute 10 percent or more of the total effluent dose and include these dose assessments in their demonstration of compliance with Appendix I to 10 CFR Part 50. (ML072120368). Provide an evaluation of the potential radioactivity buildup concentration (pCi/L) in the cooling basin from the operation of proposed VCS units. Additionally, based on the radioactivity buildup concentration in the cooling basin, provide estimate of dose impacts to different receptors.

RW 3.5-3 - ~~According to ESRP Section 3.5, principal release points for radioactive material to the environment and the direct radiation sources stored onsite out-of-plant as solid waste (e.g., independent fuel storage) need to be identified.~~ ESRP Section 5.5.2 directs the staff to review the applicant's evaluation of impacts from storage or disposal of mixed radioactive wastes presented in the ER. ~~ESRP Section 5.7 directs the staff to ensure that all conclusions given in Appendix A to the ESRP are appropriate for the proposed project.~~ A list of potential sources of ~~radioactive and~~ mixed waste generated from operations along with the disposal plans and estimated health effects related to ~~radioactive and~~ mixed waste testing and storage is needed. ~~According to ESRP Section 3.5, principal release points for radioactive material to the environment and the direct radiation sources stored onsite out-of-plant as solid waste (e.g., independent fuel storage) need to be identified. Provide volume/concentration information for the different categories of radioactive waste (such as low-level radioactive waste, mixed waste, spent fuel) generated from operation of the proposed VCS units. Specify the disposal options of different categories of radioactive waste generated from the operations of the proposed VCS units~~

Provide clarification/justification for determining that the bounding total annual activity and generated volume of solid radwaste is 9600 Ci/yr and 16,722 ft<sup>3</sup>/year per unit respectively (see Section 3.5.4 of the ER). Provide information concerning the expected volume and classification of mixed waste expected to be generated per year per unit. The information should include

- Expected volume each of radioactive waste category (e.g., low level radioactive waste, mixed waste, spent fuel) on an annual basis for each reactor design cited in the ER
- Quantity in Curies per year of each radionuclide in the solid waste stream.
- expected solid waste volume for each reactor design cited in the ER
- Citation of the document(s) relied upon as the source for each of the design-specific values.

Provide clarification/justification for the disposal options for the different categories of radioactive and mixed waste to be generated from potential operations of the proposed VCS units that includes:

- Potential disposal sites for each radioactive and mixed waste material category (LLW within and external to the Texas Compact, HLW, and transuranic waste)
- Impacts on the disposal capacity of the potential disposal sites
- Measures to reduce the generation of Class B and C LLW
- Potential to construct and operate additional onsite storage facilities for mixed, LLW, HLW, and transuranics with their impacts

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Request for Additional Information No. 6530 Revision 0

Victoria County Station ESP  
Exelon Texas  
Docket No. 52-042  
SRP Section: ESP EIS 3.4.4 - Nonradioactive Waste Systems  
Application Section: Part 3, Environmental Report Section 3.6

QUESTIONS for Environmental Projects Branch 2 (RAP2)

ESP EIS 3.4.4-1

NRW 3.6-1 - ESRP Section 5.5.1 directs the staff to review the applicant's evaluation of impacts from nonradioactive effluent discharges presented in the ER. Sufficient detail of nonradioactive wastes is needed to assess the potential nonradioactive waste system impacts (ESRP Section 5.5.1). The data needed includes quantities of wastes, their pollutant concentration at points of release (ESRP Section 3.6.3), and frequency of waste discharges to water, land, and air. Provide the volume of different categories of nonradioactive waste (such as industrial waste, municipal waste, construction debris, spoils generated from dredging activities, sludge, sanitary waste, hazardous waste) generated from construction and operation of the proposed VCS units. Specify the disposal options/impacts associated with disposal of different categories of nonradioactive waste.

Request for Additional Information No. 6531 Revision 0

Victoria County Station ESP  
Exelon Texas  
Docket No. 52-042  
SRP Section: ESP EIS 9.3 - Alternatives Sites  
Application Section: Part 3, Environmental Report Section 9.3.3

QUESTIONS for Environmental Projects Branch 2 (RAP2)

ESP EIS 9.3-1

NRW 9.3.3-1- ESRP 9.3 requires comparison of the proposed and alternative sites for various topics including “nonradioactive waste disposal.” ER Section 9.3.3 discusses alternative sites but the discussion does not include impacts of nonradioactive waste disposal. Provide discussion of impacts of nonradioactive waste disposal and cumulative impacts (from other activities) at alternative sites. Include statement in ER about how nonradioactive waste disposal impacts compare between all sites (VCS and alternative sites).